

## Abstract

**Title:** Field tests relevancy (equipollence) of endurance predisposition of professional footballers.

**Made by:** Bc. Martin Paroulek

**Supervisor:** Prof. Ing. Václav Bunc, Csc.

**Aims:** Contribute to solve problems with defining the level of endurance predisposition of professional footballers.

**Methods:** 10 professional footballers were tested. Their average age was  $19,1 \pm 0,9$  years, average weight was  $69,2 \pm 2,5$  kg and average height was  $178 \pm 4,2$  cm. Data was obtained from three functional load tests. Data was processed by means of correlative analysis. Assumed level of equipollence among load tests was defined 0,7.

**Results:** We haven't found significant relation between measured figures of VO<sub>2</sub>max laboratory load test and measured figures of field 2 km run test. We even haven't found significant relation between measured figures of VO<sub>2</sub>max laboratory load test and measured figures of field endurance 20 m shuttle run test. As we can see from the results, field tests cannot be considered as adequate compensation of laboratory tests. More research is needed at this field of survey to be able to confirm it or adjust it. We are aware of limits of our survey and its value of notice, for example number of probands etc.

It was confirmed that 2 km run test has higher level of equipollence (0,41) in laboratory load test than second field endurance 20 m shuttle run test (0,33).

The most accurate figure of VO<sub>2</sub>max can be obtained in laboratory conditions.

**Keywords:** Diagnostics, VO<sub>2max</sub>, reliability, field tests, relevance.